

ABSTRACT OF THE DISCLOSURE

Methods of improving the grindability of raw titanium dioxide produced by high temperature oxidation of titanium tetrachloride comprise quenching the oxidation reaction products with an essentially inert fluid to reduce the degree of aggregation of the titanium dioxide particles and thereby improve the grindability of the raw titanium dioxide. The essentially inert fluid can comprise recycled cooled gaseous reaction products from which the titanium dioxide particles have been separated.